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ORIGINAL ARTICLES

THE HEART AND ITS MANAGEMENT IN HYPERTHYROIDISM.*

CYRUS C. STURGIS, M.D.,
BOSTON, MASS.

Among the most constant symptoms and signs of exophthalmic goiter are palpitation, dyspnea, and tachycardia, all three of which are commonly associated with heart disease. Moreover, it has long been known that a certain number of patients with toxic symptoms referable to the thyroid gland have been observed to develop obvious indications of chronic cardiac failure as evidenced by irregularities of the pulse, an enlarged heart, increase in the size of the liver and edema of the extremities. It is not surprising, therefore, that attention was directed toward these cardiac complications, early in the history of the disease, and their importance was recognized. Within more recent years, however, we have had recourse to newer methods, both in the study of thyroid disorders and heart disease, and these have been of great assistance in clarifying our views pertaining to the associated disorders of the heart in this condition.

In a great majority of patients with toxic thyroid conditions, the only symptoms suggesting cardiac disease which may be elicited, are palpitation and dyspnea. The former symptom is characterized by its variation in intensity, becoming more marked during excitement or exertion, and diminishing with complete rest, although it is usually always present to some extent. The constancy of this symptom in Graves' disease differentiates it from the palpitation observed in the purely nervous type of heart disorder. The second common symptom which is present in this large group of patients is dyspnea. This is usually present only on exertion and then it is not marked. The only other indication of cardiac involvement frequently observed is a tachycardia which varies from 90 to 150 per minute or more even while the patient is at complete rest. No other symptoms or

signs referable to the heart are present in fully two-thirds of the patients who have exophthalmic goiter or toxic adenomatous goiter and, in my opinion, more evidence than this is necessary in order to conclude that such patients have suffered cardiac damage. In this large group, the only indications which are suggestive of heart disease may readily be explained by the increase in the amount of work which is placed upon the cardio-respiratory system as a result of the characteristic increase in the oxygen requirement by the body tissues. To meet this demand it is necessary to increase the respiratory volume and the blood flow per minute. Essentially the same situation is produced in a normal person by exercise which likewise is associated with dyspnea, palpitation and tachycardia. Therefore, in a great majority of patients with exophthalmic goiter the heart complications are not a matter of great concern, as the evidences of cardiac damage are not striking, there is very little functional impairment, no added risk attends the operation of subtotal thyroidectomy, and all cardiac symptoms disappear following the effectual treatment of the thyroid condition. Such a cardiac picture is usually observed in patients with exophthalmic goiter who are under fifty years of age and in whom the disease has been present for only a relatively short interval. I do not recommend the routine use of digitalis in these patients, nor is any other cardiac therapy necessary, except a short preoperative rest in bed and the routine use of Lugol's solution which has given very gratifying results in our experience for the past three years.

Among this large group, however, there are a small number, who, in addition to the above symptoms, display significant evidence of more serious cardiac damage which manifests itself to the patient by paroxysmal attacks of grossly irregular heart action. These are often accompanied by a sudden increase in dyspnea and palpitation. On observation this cardiac arrhythmia have been

*From the Medical Clinic of the Peter Bent Brigham Hospital, Boston, Mass. Read before the annual meeting of the Rhode Island Medical Society, June 4, 1925.

identified as transient auricular fibrillation. Such attacks may occur very early in the course of Graves' disease before other signs of serious cardiac injury are apparent. They are of considerable importance, as I consider the history of such attacks as an indication for the preoperative use of digitalis, even though the pulse is regular just prior to the thyroidectomy. The rationale of this is based upon the knowledge that such patients may develop an attack of auricular fibrillation, with serious results, either during or immediately following an operation on the thyroid gland. It is possible to treat such a cardiac upset, as soon as it develops, by the intravenous injection of strophanthin, but it seems a more sensible plan to prepare for such an emergency and avert serious consequences, by the administration of a drug which is known to control such conditions.

In contrast to the large group of patients with toxic conditions of the thyroid gland in whom the cardiac symptoms are not serious, is a smaller group who often give striking evidence of impairment of the heart muscle. Such patients often display the more obvious signs of cardiac failure such as orthopnea, marked dyspnea on exertion, cough, an enlarged heart, and often marked edema of the dependent parts. There is usually, in addition, engorgement of the veins of the neck, and more rarely a swollen liver with a tender edge. Such patients usually have a markedly irregular pulse in association with auricular fibrillation, and occasionally I have seen other abnormal cardiac rhythms such as partial heart block and auricular flutter. When these patients are first seen, it is the heart condition which demands immediate attention, and it may become necessary to continue cardiac therapy over a considerable period before it is advisable to proceed with the operative treatment of the thyroid gland.

Patients with serious cardiac complications are usually over fifty years of age and have had thyroid disease for a long period. These two factors, in my opinion, determine the extent of myocardial damage in patients with either exophthalmic goiter or toxic adenomatous goiter. As individuals approach middle life they are more prone to develop heart disease as the heart and blood vessels at this time are more susceptible to injury than they are at a younger age. This perhaps explains why

severe cardiac injury is more commonly observed in patients with toxic adenomas than exophthalmic goiter as the former condition commonly develops in individuals at a later age than the latter. Clinical observation has also taught that the duration of the toxic thyroid state is definitely related to the degree of cardiac injury. It is rare to see a patient with chronic cardiac failure who has not had either exophthalmic goiter or toxic adenoma for several years, and very infrequently does one encounter serious evidences of myocardial failure in patients whose thyroid symptoms have been present for less than one year. It is important to emphasize that, in these patients, serious injury to the heart may be prevented by the early and efficient treatment of the thyroid disease.

There are a number of theories which have been advanced to explain the cause of the cardiac complications in exophthalmic goiter and it is possible that several different factors, acting simultaneously, may be responsible. It has long been held that these disturbances result from the action of the toxic products of thyroid gland through the cardiac nerves or directly on the heart muscle. Frequently the pathological changes which occur in the heart muscle are very slight and consist chiefly of scars and round cell infiltration which has been demonstrated in a few cases, and fatty degeneration which occurs more commonly. These changes which have been reported appear to be wholly inadequate to explain the severe functional impairment which may be associated. Several years ago two of our patients with exophthalmic goiter died of heart disease and were found to have an acute myocardial necrosis which was the immediate cause of death. Such a pathological change is an exceedingly rare condition and does not account for the symptoms of heart disease in a large proportion of these patients. Its presence, however, lends some color to the theory that abnormal products from the thyroid gland may act directly on the heart muscle. I have long been convinced that the most important single factor in the production of heart failure in association with toxic conditions of the thyroid gland is the tremendous strain to which the myocardium is subjected over long periods of time. As the oxygen requirement of the tissues is already increased in exophthalmic goiter or toxic

adenoma, it becomes necessary for the heart to increase the circulation rate often as much as 40 to 50 per cent in order to convey an increased amount of oxygen from the lungs to the body tissues. While the methods of determining the actual blood flow in the body are not exact, still theoretic conditions are very convincing that in all thyroid conditions, which are characterized by an increase in the basal metabolism, the heart must perform as much as 50 per cent more work than normal or perhaps even more. It is not difficult to conceive of cardiac injury following continuous over-activity of the heart muscle, day and night, without rest, over a period of months or years. There is no situation encountered in clinical medicine which produces a strain on the heart muscle equal to that in exophthalmic goiter. It is undoubtedly true that the heart is capable of withstanding greater amounts of work for short intervals without injury as this occurs in strenuous exertion or during fever, but the continuous over-work of the heart over long intervals, as in exophthalmic goiter, seems a most logical explanation of the exhaustion of cardiac reserve and the functional impairment of the myocardium.

In order to emphasize the importance of the cardiac complications in exophthalmic goiter I wish to relate briefly the case of a patient which I have reported in detail elsewhere¹, who came under my observation several years ago at the Peter Bent Brigham Hospital. This patient was a male, aged 45, salesman, whose chief complaints were "shortness of breath and palpitation." Fifteen years before admission, when the patient was 30 years old, he developed nervousness and weakness; and he lost a total of 40 pounds in body-weight in two months. In addition, his eyes became more prominent and it was noticed that he had a slight swelling in his neck. He was put to bed for four weeks and after a vacation of four months, all of the evidences of the disease disappeared but the exophthalmos and the goiter, and the patient resumed his work. In brief, his subsequent history indicated that following this initial attack of the disease, he had five subsequent exacerbations, at intervals of approximately three years, and each one persisted for an average length of time of three months. Following each attack his exophthalmos and goiter remained unchanged, but there was a tendency for him to have more dyspnea and palpi-

tation following each wave of the disease. When I first observed him, his difficulty was not with exophthalmic goiter as shown by the very slight elevation of the metabolism (+21), but with cardiac failure as indicated by orthopnea, a markedly enlarged heart, and striking edema of the lower extremities, penis, and scrotum. After being in the hospital a short time he developed fluid in the left pleural cavity and died a few days later. Necropsy showed hyperplasia of the thyroid gland, hypertrophy and dilatation of the heart, and myocardial necrosis. This patient serves to illustrate that although a distinct period of improvement may occur in a patient with exophthalmic goiter, yet there is a tendency toward a recurrence of the disease. Also, as in the case of this patient, it should be emphasized that if the disease prevails long enough, there will result serious damage to the heart and this may ultimately cause death from cardiac failure. It is my belief that a certain proportion of patients with exophthalmic goiter who are untreated, will make a spontaneous recovery. A much larger number, although they might have remissions, succumb, either in an acute thyroid crisis or, following a long period of invalidism from heart failure.

The practical management of patients with exophthalmic goiter or toxic adenoma and severe heart disease should be concerned chiefly with improving the patients' condition to such an extent that appropriate measures, directed toward the relief of the thyroid condition, can be carried out with safety. In most instances this means that the patient should be able to withstand a major operation on the thyroid gland as, in my opinion, subtotal thyroidectomy without preliminary ligations of the thyroid arteries, offers the greatest possibility of cure. It may seem rash to subject a patient with severe cardiac disease to a major surgical procedure, but this is justifiable as very little permanent improvement can be expected in the heart condition until the underlying cause, the hyperthyroidism, is eliminated. Moreover, with careful preoperative treatment and modern surgical technique, the operative risk is not great.

In the treatment of patients with exophthalmic goiter and toxic adenomas who have, in addition, severe cardiac failure, every resource known to be of value in the treatment of heart disease, should be utilized. The patient should be placed at com-

plete rest in bed, the fluid intake limited to 1500 to 2000 c.c., and morphine used if necessary to obtain rest and quiet. Occasionally in patients with acute cardiac failure, plebotomy with the removal of 500 c.c. of blood has been performed as an emergency measure with splendid results. Digitalis should be given to all patients who have auricular fibrillation or any definite evidence of cardiac failure such as edema, marked dyspnea, or an enlarged liver. It is my impression, however, that the results following the use of digitalis in patients with exophthalmic goiter and toxic adenoma are not as satisfactory as those obtained in cardiac failure due to other causes. Moreover, it is necessary to administer the drug with extreme caution, for, in some patients with toxic thyroid conditions, symptoms such as loss of appetite, nausea and vomiting may appear before the therapeutic results are obtained. If the plan is followed of administering moderate sized doses of digitalis until either definite improvement or mild toxic symptoms appear, the drug may be responsible for a certain amount of harm. The most rational plan to pursue under the circumstances is to give the patient a dose of average size of a potent preparation, in divided portions, and to ignore the usual plan of administration. We have carried this out in a practical way by the use of the powdered dried leaves of known standard strength, which in a dosage of 30 mg. per kilogram of body-weight gives the maximum effect without producing toxic symptoms. For instance, if a patient weighed 68.2 kg. (150 pounds) the optimum total dosage of the dried leaves would equal approximately 2.0 gm. (30 grains) or 20 c.c. of the tincture (two-thirds of an ounce). If advisable, one-half of the total amount can be given as the initial dose, provided the patient had not already been receiving digitalis. The most satisfactory method of administering the remainder is to give doses of 0.1 gm. every four or six hours until the total amount has been given. The last few doses should be given with extreme caution and the drug omitted immediately if loss of appetite, nausea or vomiting develops. After the total amount has been administered, following an intermission of 2 or 3 days, doses of 0.1 gm. should be given each day to maintain the digitalis effect. If no contra-indication develops this should be continued until the patient is convales-

cent from the operation. By the use of digitalis according to this method, I am convinced that it is of great value in the treatment of cardiac failure in these patients and I have not seen harmful results following its use.

Within recent years a new drug has been introduced in the treatment of exophthalmic goiter and this has been found to be of great assistance in the management of these patients. I refer to iodine which is usually given in the form of Lugol's solution in the dosage of 5 to 10 drops t.i.d. Such therapy, in a majority of patients with exophthalmic goiter, produces a remarkable drop in the basal metabolism, approximating normal, and results in a striking improvement in the general condition. This effect, which has been called an iodine remission, is temporary, as it may persist for only 12 or 14 days, but it affords a patient with exophthalmic goiter an opportunity to be operated upon at a favorable time when the risk attending the operation is much less. To the patient with exophthalmic goiter and severe cardiac failure, the iodine remission, with the characteristic diminution in the basal metabolism offers great possibilities of relief. With the fall in the basal metabolism, there is a diminished demand for oxygen by the tissues and a decrease in the blood flow per minute. The damaged myocardium, therefore, is relieved of a greater part of the excessive strain and an opportunity for compensation follows. As a result of this the cardiac symptoms improve and the signs, such as edema, become less marked. The results from iodine therapy have been so striking that all patients with exophthalmic goiter have been given this drug routinely at the Peter Bent Brigham Hospital as a preoperative measure during the past three years. Unfortunately, for some unknown reason, iodine has slight, if any, effect in patients with toxic adenoma, and these patients are, therefore, denied the benefit which is obtained in patients with exophthalmic goiter.

One other drug deserves mention in the treatment of the heart complications of exophthalmic goiter, although I can add very little from personal experience with it. Recently Foster² has recommended quinidine to these patients with auricular fibrillation in whom the rhythm does not become normal following full doses of digitalis. It is known that the abnormal rhythm of auricular fibrillation will become normal following the use of

this drug in a certain number of patients. Foster recommended that quinidine be given in doses of 0.5 gm. every four hours, day and night. If satisfactory results are not obtained, he suggests that the dose be doubled for 36 hours. I have been reluctant to use quinidine in patients with auricular fibrillation as our experience at the Peter Bent Brigham Hospital has taught us that the use of the drug may be followed by untoward effects. The beneficial effects which may follow its use have not been demonstrated to be of sufficient value to compensate for the possible harm which might result.

Following the use of the various medical measures which I have mentioned, the problem of the most efficient method of treating the hyperthyroidism, the underlying cause of the cardiac condition must be considered. In my opinion, surgery offers the greatest possibility of cure and the operative mortality of the surgeon who has perfected the technique of thyroid surgery to a high degree is exceedingly low, even in patients who have serious cardiac complications. Provided very careful pre-operative care has been given the patient, and the optimum time for operation is selected, it does not appear that even serious damage to the myocardium can be regarded as an added risk. In my experience these patients have undergone the operation remarkably well, and I have not witnessed a single fatality as a result of cardiac failure following thyroidectomy although a fair number of patients with advanced heart disease have been operated upon. Moreover, usually splendid results are obtained by operation as the cardiac symptoms are frequently relieved either in part or completely. I have never been in favor of thyroid artery ligations as a preliminary measure to thyroidectomy as I have not observed convincing evidence that this procedure was followed by beneficial results which could not be accounted for by the natural course of the disease. On the other hand, I have seen patients lose in body weight, develop fever and suffer from a rather marked psychic upset, and in one instance succumb, following even such a minor operation as ligation of one of the thyroid arteries. In my opinion, therefore, it appears to be the most sensible plan to proceed immediately to subtotal thyroidectomy as soon as the patient is in the best possible condition. Occasion-

ally it may be safest to remove one-half of the gland if unexpected operative complications are encountered, but this occurs rarely.

Only one other method of treatment seems worthy of consideration and this is the use of the Roentgen-ray. In a small group of patients this therapeutic agent has produced very satisfactory results. The best routine to follow is to give four exposures at intervals of three weeks. The patient is then observed for six weeks following the last treatment. The basal metabolism should be determined at frequent intervals to prevent the possibility of over-treatment and a resultant myxedema. If striking improvement does not follow four Roentgen-ray exposures, little more can be expected of it, and further treatment of this nature should be discontinued. This type of treatment is not strongly recommended as the chances of cure are not great and the period of three months, over which the treatment is given, may be sufficient time in which additional cardiac injury may occur.

The question may well be asked how often is it possible to relieve the cardiac conditions in these patients. This may be answered very definitely by saying that in young patients, even though the functional ability of the heart has been markedly repaired, the results are uniformly excellent, provided the underlying pathological condition of the thyroid gland is eliminated. In older persons also, even though the cardiac failure is marked, it is possible to produce striking improvement following appropriate therapy directed toward the thyroid gland. These results are so satisfactory that there should be no hesitation in recommending a subtotal thyroidectomy or more rarely Roentgen-ray treatment. If the thyroid treatment is neglected, little can be accomplished for the cardiac condition, in fact, it is to be expected that the condition will steadily grow worse and ultimately cause the death of the patient. There is, however, one type of patient with exophthalmic goiter or toxic adenomatous goiter and cardiac complications in whom the outlook is unfavorable. This is the individual over fifty years of age who has had the disease over a long period of years. Though satisfactory results may be obtained, even under such unfavorable conditions, the prognosis for relief of the cardiac symptoms should be given with caution. There is now a patient on our wards, who

is 58 years of age and in whom the first symptoms of exophthalmic goiter developed four years ago. Although this patient has had two thyroidectomies and no longer has any of the symptoms of exophthalmic goiter, yet she is a chronic invalid with cardiac failure from which she will never recover. In such an instance as this the heart has been done irreparable damage which undoubtedly would have been averted had the proper treatment of the thyroid condition been instituted earlier in the course of the disease. It is to be hoped in the future that such a failure as this patient illustrates will be encountered less frequently.

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DIPHTHERIA IMMUNIZATION IN PROVIDENCE, A PROGRESS REPORT.*

BY DR. CLARENCE L. SEAMMON,
PROVIDENCE, R. I.

In 1913 Schick devised a method of determining the susceptibility of a person to diphtheria. The test, which bears his name, is made by injecting intradermally a fixed quantity of diphtheria toxin, properly diluted. A positive reaction means that the individual has less than 1/30 of an antitoxin unit per cubic centimeter of his blood. A negative reaction means that the subject is immune.

Toxin-antitoxin mixtures were first employed by Babes in 1895 in active immunization of guinea pigs. Other workers, including Park and Theobald Smith, had confirmed this work by 1913. Von Behring must be given the credit of first attempting to immunize human beings with toxin-antitoxin mixtures. His work was published in May, 1913. Park and his collaborators, working independently and with mixtures of their own manufacture, for Von Behring has never made public the exact composition of his product, first made extensive practical application of this discovery.

*Read before the Providence Medical Association, May 4, 1925.

As you know, most cities in this country are now making practical application of the Schick test and are immunizing susceptibles with the toxin-antitoxin mixture. New York was the first city in the world to offer immunization to school children. Park and his co-workers had done a great deal of work with the Schick test and toxin-antitoxin before 1921, but in the spring of that year immunization was begun on a large scale in the schools. Since then over 600,000 school children have been tested for immunity to diphtheria and nearly half of this number have received the protective injections. In 1919 the deaths from diphtheria in New York City were 1239, and in 1924 only 714. Park attributes this drop of 43% in actual deaths, in the years compared, to the health department activities in diphtheria immunization.

Since May, 1922, Boston has immunized 37,000 school children and has treated and found immune 36,000 more.

New Haven has a group of 8,000 children immune to diphtheria.

Dr. F. W. Sears, district health officer of New York State, has directed a particularly fine piece of work in Auburn, a city of 36,000 people. Immunization was begun in February, 1922. In the spring of 1924, Auburn had protected or found immune by means of the Schick test 85% of its school children. During the fifteen months preceding October, 1924, Auburn had one death from diphtheria, and this death occurred in a child 2½ years old who had not been immunized. Through the school year 1923-24 there were no cases of diphtheria among the immunized school children. There were seven cases among the children not immunized, but no deaths. During the four years preceding this work of immunization, Auburn had a yearly average of 104 cases of diphtheria resulting each year in 14 deaths.

Immunization in Providence was started November 12, 1921, with Dr. H. J. Connor in charge of the clinic at the Atwells Avenue School. During the winter and spring three other clinics were opened. A special endeavor was made to reach the pre-school child, but without great success. This work was continued, however, in the schools and at the end of the school year 1923-24 Dr. Connor had tested and given protective treatments to about 8,000 children. Since October, last year,

Dr. Connor and Dr. Newsam have tested about 10,000 school children, giving the protective treatments to those found susceptible. Diphtheria immunization has been offered in every public and parochial school in the city during this present school year, high schools excepted. The total number of children in this group numbers approximately 40,000, of whom about 10,000, as I said a moment ago, have been tested and given protective treatments when found susceptible. Considerable publicity has been given this work by the press, the radio broadcasting stations, and the moving picture houses. In addition many talks have been made to parent-teacher associations and other organizations. A circular letter has been sent to physicians, as you know, urging them to immunize the children under their care. For the year past we have been suggesting the treatment of all children between the ages of six months and six years with toxin-antitoxin, without the Schick test. Many of you are giving toxin-antitoxin, but to those of you who are not, we can only say that if you have a hypodermic syringe and will find the child, the Health Department will furnish the toxin-antitoxin to you at cost. Immunity following immunization develops slowly, but at the end of six months it is complete in about 90% of children receiving three protective treatments a week apart. This immunity can be demonstrated by means of the Schick test when the six months period has elapsed. To children in whom immunity has been demonstrated a certificate is now being given.

We have had no diphtheria in any child who, six months after being immunized, showed a negative Schick test. Four clinics, which we hope may be permanent, are being conducted by the Health Department in different sections of the city under the immediate direction of Doctors Connors and Newsam.

Many physicians are giving the toxin-antitoxin treatments, but are sending their cases to our clinics for the Schick test.

"HEALTH AUDIT"—AID TO LONGER LIFE.

By

CHARLES H. MAYO, M.D.,

ROCHESTER, MINN.,

Member Gorgas Memorial Institute.

In the past twenty-five years more has been accomplished in medicine than in all the centuries

before. Scientific medicine has done about all it can for the mass diseases, now practically gone, but which used to frighten and destroy the people by tens of thousands.

In the fourteenth century fifty million people died of the plague. There was only one way of escaping it, and that was for people to leave their homes and run away to places free from it. In the eighteenth century many millions, probably one hundred millions, died of nothing but smallpox.

Today each man is dying his individual death, and it is up to us to see if we cannot reach him in some manner and persuade him that it is worth while, when he is still vigorous, to learn to keep his machinery from going to pieces from neglect.

In the sixteenth century, man had but twenty years of average life. It is fifty-eight today, and you wonder whether you will be able to reach the three score and ten of the Bible. We hope to be able to do that from a medical standpoint within the next twenty-five to forty years.

It is coming. We know it is coming. Our problem is advancing the age of our people by teaching men, women and children the art of keeping well. There are thousands of deaths annually, which, with reasonable precaution, could be prevented. This means that society is not availing itself of the medical knowledge already at its disposal. Of the 3,000,000 people on the nation's sick list every day, one-fourth to one-third are needlessly so.

To combat this unnecessary suffering and waste of human resources, to induce better health and longer lives, a campaign of health education such as is now being undertaken by the Gorgas Memorial Institute is of the highest value.

An important phase of the work is the periodic health examination or health audit, the only known way of discovering certain incipient diseases before the individual realizes anything is wrong. In the beginning, Bright's disease, apoplexy, and high blood pressure are usually symptomless to their victim. But discovered in time by the health audit, the advice of the family doctor followed out, you are put on the road to recovery before your vital organs are wrecked beyond repair. Take as good care of your health as you would of your automobile and have your vital structures tested yearly to locate the enemy of your health.

A second vital function, which is truly preventive medicine, is teaching the individual the ill effects of wrong habits of living, which, if continued, will lead to illness. Improper eating, and getting insufficient exercise each day, are among them.

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R. I. Ophthalmological and Otolological Society—2d Thursday—October, December, February, April and Annual at call of President Dr. Frank M. Adams, President; Dr. Jeffrey J. Walsh Secretary-Treasurer.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October. Dr. Frederick Rueckert, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

PAWTUCKET
Meets the third Thursday in each month excepting
July and August

H. A. MANCHESTER	<i>President</i>	Saylesville
ROBERT T. HENRY	<i>Secretary</i>	Pawtucket

PROVIDENCE
Meets the first Monday in each month excepting
July, August and September

ALBERT H. MILLER	<i>President</i>	Providence
P. P. CHASE	<i>Secretary</i>	Providence

WASHINGTON

Meets the second Thursday in January, April,
July and October

M. H. SCANLON, M.D.	<i>President</i>	Westerly
WM. A. HILLARD	<i>Secretary</i>	Westerly

WOONSOCKET

Meets the second Thursday in each month excepting
July and August

J. V. O'CONNOR	<i>President</i>	Woonsocket
J. M. MCCARTHY	<i>Secretary</i>	Woonsocket

EDITORIALS

YOUR PATIENT AND MINE.

"Team work" and mutual help, co-operation and forbearance; these constitute the crying need of the day. This applies to all men and groups, from nations to individual citizens. Lacking these, Europe fell, and rising battered but unregenerate, rides for a second fall. These are the warp of the social fabric on which are woven the various patterns of men's organized activities,—industries,

church and state, marriage and the home—and not the least among them all, the benevolent fellowship of the men of medicine.

And what of us of the medical fraternity? Time was when Doctor A. was all in all to the Smith family, Doctor B. to the Joneses, and Doctor C., let us say, to the Browns, each supreme in his own little sphere, taking personal charge of everything from baby's attack of croup to grandmother's vertigo, removing tonsils and appendices, putting up fractures and delivering babies, all in the day's routine. When passing the home of the Smith

family Doctors B. or C. must needs tread lightly and with eyes averted, for there Doctor A. has staked his claim. Even to urgent appeals for aid from the Smiths did they need to respond with extreme caution lest a feud be started. And feuds were started inevitably and mutual suspicion was all too often the rule.

But now the Smiths have awakened; Doctor D. does their surgery, Doctor E. their laryngology, Doctor F. brings their babies into the world and Dr. G. attends them through their childhood, and so on down the list, perhaps to Doctors X., Y. and Z. Poor old Doctor A. still takes care of grandma's colds but has to call in an internist when she gets pneumonia. One specialist after another he has guided to their doors, each in response to a particular need, and now that they have learned the way most of them go there without reference to his wishes or the formality of a report to him on what they find or do. A bit perplexed, he asks himself, "Whose patients are they, anyway?"—and finds no answer.

The general practitioner, in the old sense, is indeed gone, but not so the trusted friend and family adviser. He still exists, usually in the person of a medical man, sometimes a surgeon and sometimes a rather questionable combination of the two, but still he remains the father confessor in matters of health, the clearing house for family illness. But he can not hold his position of trust by virtue of precedence and custom and the fear on the part of the family lest they arouse his indignation by refusing to be branded as his own. He can hold them only by the continued diligence, kindness and faithfulness with which he executes his functions, guarding their welfare and summoning reliable aid when needed. Those of us who still harbor the old concepts, who are still ready to balk when the patient's family suggests a consultation, who are quick to resent the honest efforts of a colleague to help the patients whom they seek to "keep in line" as their own,—in short, those of us who still think in terms of "your patients and mine," had best awake, for they are of the old order and a new day has dawned, a day, we hope, in which the private practice of medicine will be raised to a higher plane and petty bickerings and jealousies, the product of mutual mistrust and selfishness on the part of practitioners, may be assigned permanently to the discard.

A LESSON FROM THE PLAGUE.

Has scientific medicine added to human happiness? Recently a newspaper heading stated that "Medicine has added little to man's happiness. Doctor declares it has advanced little beyond Middle Ages." An eminent scientist, speaking with the weight attending his connection with a great foundation, had said that "Medicine in protecting man from infectious diseases has already accomplished miraculous progress, but we may doubt whether this victory has brought much happiness to the world." This statement, which should have resulted in an indignant protest from the medical profession, seems to have been accepted without comment.

The year 1665 was notable as the year of The Great Plague in London. It was not the year of The Plague, because in those days the plague was always present, but the year of The Great Plague. In that year society was disorganized, business was disrupted. There was no police protection, no courts of justice. The king and his court fled from the city. The well-to-do moved away. The poor remained and died. By fall, 100,000 of the population of a half million had been destroyed. Many of the medical profession shirked their duty and fled. The few physicians who remained tried to control the disease by ineffectual prophylactic measures and as ineffectual treatment. Blood-letting, blisters, sweating, and a multitude of drugs were used without benefit. The medical science of the day, groping blindly, could find no means of relief. Finally panic measures were adopted. The sick and well were locked together in their infected houses until all had perished. Their unnamed bodies were buried in shallow trenches and covered with quicklime to hasten their disintegration. It is hard to imagine a more unhappy time. Sixteen sixty-five was a black year in London. But it was only one year of many, for the plague ravaged many cities for many generations.

Today it is not too much to say that the plague has been conquered by medical science. In 1907 the discovery was made that the plague is transmitted to man from rats by the agency of fleas. The flea is the agent which spreads the infection from rat to rat and from rat to man. Plague infected rats have been exterminated by hunting, trapping, poisoning, and by infection with disease. Fleas have been brought under control by cleanliness and insecticides.

The plague has been driven from the centers of civilization and lurks in a chastened form on the outskirts.

When a case of plague is reported in Kenya, an efficient health department starts a campaign of rat extermination and the danger of the spread of the disease is soon past. In the case of the plague, if medical science has not added to human happiness, it has done away with a great amount of unhappiness. It is only one example of the benefits derived from medical science in our time.

THE DOCTOR'S RETURN.

It seems to be quite the vogue to interview distinguished visitors to our shores and broadcast through the daily papers such observations upon various conditions as they may have prepared for such purposes with a particular view to making a favorable impression. It would be interesting to know what a physician's impressions are after a much needed rest at farm, shore or the grand tour. Of course the doctor is glad to get back to his work, to his tools of trade, to his entirely neglected mail and to his library, to say nothing of the cordial greeting everyone accords him, the usual comments upon his bronzed visage and fine appearance, etc. And, coming from another atmosphere, oh quite another atmosphere, he is in a position to observe and perhaps record his impressions of his return, at least some of them. He has been breathing the air of the country or shore and perhaps observes that urban atmospheric conditions are dissimilar. Of course; they would be; but why so much? Perhaps he has bathed in pond or ocean and notes a corresponding dissimilarity, also, of course; but why so much? If he is truthful he will record that the water in our bays and streams is filthy and the air stinketh. To come from generalities to particular cases, those that bathe in sea water inland from Rocky Point bathe in filth and as our atmosphere is considerably affected by the underlying bodies of water it readily acquires that quality. The doctor would like to go further on record and state that never in over a quarter of a century of observation has the Providence River at Market Square been so filthy and its gaseous emanations so putrid. We would not

belittle the good works that are toward for cleaning the bodies and uplifting the minds of those who must perforce remain in our large cities during the heated season, but why by all that is holy must this river flow on forever as before. The engineering difficulties for overcoming this nuisance are not great and it is an offense to the eyes and the nose.

It may be that malodorous air and water do not show pathogenic bacteria upon culture media, that disturbing sights and noises directly cause fragmentation of the myocardium or neuroses, but if modern medical thought teaches anything it shows that none of these add to comfort or convenience, that only the well to do can get far enough away from them to escape their depressing and degrading influence.

Not long ago the newspapers brought to public attention the shocking condition of Newport harbor and soon a propaganda was instituted showing that our waters were becoming so pure that fish and shellfish were returning. There is something wrong with our health departments that it is left to the public press to illumine such a nuisance and if it is no longer the function of the various boards of health to regulate indecencies like this there should be inaugurated a commission which shall have charge of such matters and which shall have authority to do things and the hearty support of the medical profession and the public.

Natural swimming pools are undoubtedly the best, but these are used by so many people that careful supervision and frequent inspection should safeguard the users. There again comes the difference between scientific study and common sense. For some time the writer frequented one of the well known pools which was under scientific care, but one day chanced to observe the custodian removing sundry material from the tank with a suction apparatus at the end of a long pole, and, although the water was supposed to be pure, the offense to the senses quite halted said writer in his laudable pursuit of health. But we welcome this movement for out of door bathing and hope that it will lead to a realization of the true condition of our inland waterways and revive new thoughts and energies for the betterment of existing conditions.

LETTER FROM PARIS.

Dear Doctor Brown,

During a sojourn in Paris and the visitation of the French hospitals many interesting sidelights are presenting themselves and the thought occurred to me that the same might well be jotted down and perhaps be worth a passing glance to others.

L'hospital St. Louis is located near Place de Republique, one of the oldest sections of Paris and was erected in the year 1610 by King Henry IV. It was at this time outside of the walls of Paris, built for lepers. Until a few years ago it was used as a hospital for skin and venereal diseases and not until after the war was it used at all for oto-laryngology and plastic surgery. Its capacity—2,000 beds. It is a low rambling structure of stone blocks, covering about three city squares, the outside of the building serving as a high wall to encompass the grounds. Inside of this square are sub-divisions, running at right angles with courts, containing trees and fountains. One area within contains a small chapel. Surmounting one of the inner sub-divisions is a large tower with a solitary clock face on its front, and some feet above, a belfry containing five bronze bells, blackened with age and serving to sound the passing hours and quarter hours with their musical chimes.

The old stone walls have every appearance of antiquity and look as though crystallization were gradually taking place in the blocks and coming to the surface in the form of a grayish-white powder.

Modernization has been taken advantage of within the hospital however and steam heat and electric lights installed. The operating room, while not up to our standards, is the most modern of all, with marble tiled floors, gray enameled walls and ceiling and modern plumbing fixtures.

Sterilization of instruments is all done with dry heat. Different sets of instruments are placed in hermetically sealed metal boxes, sterilized and brought to the operating room. If an instrument not in the lay-out is required during an operation, no time is lost waiting for it to be boiled. A box is opened and the desired instrument is given to the surgeon at once.

Before draping the instrument table, the operating nurse pours a quantity of alcohol on the

enameled top, ignites it, and when the flame has extinguished itself, spreads the sterile sheet. All basins are treated likewise, the nurse rolling them from side to side as the alcohol burns, so that the flame will touch all surfaces.

The head operating nurse has three narrow, horizontal black stripes, bordered with gold across the front of her cap, and directly in the center is placed une étoile d'or. Nurses receive a rosette of red and blue from the City of Paris after a certain number of years of service.

Chloroform is the anaesthetic of choice, the claim for its use residing in the fact that the French are so habituated to the use of wines that ether is not so successful. Second year medical students are the anaesthetists. In operations about the head, a hollow, right angled spatula is inserted behind the epiglottis, ending above the larynx and surrounded with a gauze packing, which effectually checks blood from reaching the air passages. The intake of the spatula is connected to a special chloroform bottle with a rubber tube, containing a two-way valve. It is essentially a breathing apparatus devised by Sebileau. The anaesthetist sits at the foot of the table and the anaesthesia goes merrily on, with no attention to pulse or reflexes. If the patient becomes cyanosed, the inhalation is stopped a few minutes and then resumed, and in spite of all this, deaths do not occur.

For large classes or when there are too many to group around the operating table, there is a class room adjoining the operating room and a moving picture of the operation is thrown on a silver screen, much larger than the original, without any flickering. The operator talks into a microphone as he proceeds and his words are reproduced by means of an ordinary loud speaker, such as is used in radio. The apparatus is called the Episcopes. It consists of a circular battery of ten water cooled electric lamps, with a lens of proper focus, suspended from the ceiling and all directed at a central point on the operating table, throwing a brilliant circle of light on the operative field. In the center of the lamps and about two feet above the table is a periscope, facing downwards, adjustable on its distal end and connected to a bellows similar to those used on Kodaks. This passes horizontally to a square opening in the wall between the rooms. All procedures are now reflected to this point and by means of a lantern thrown on

the screen. All anatomical structures appear clearly and each step of the operation can be followed, sitting in a comfortable chair. The lights are so powerful, that the operator and assistants are obliged to wear smoked glasses.

Block anaesthesia is used extensively and successfully—using special syringes and needles, made in Geneva.

Glosso pharyngeal and lingual nerves for anaesthesia of tonsils, pharynx, soft palate and uvula.

Meckels Ganglion—for Surgery of Sinuses—Sluder's syndrome—etc.

Sup. maxillary nerve infra-orbital for radical antrum operations.

Inf. dental nerve—surgery of mandible—plastic surgery of lower lip.

Sup. laryngeal nerve—T. B. laryngitis.

Inter-laryngeal operation—thyrotomy, laryngeal fissure, laryngectomy, etc.

A volume could be written about the different methods and technique of the different operations, all highly skilled in their particular branch. For instance, Victor Veau does nothing but cleft palate and hare lip—operating every day at Hospice des Enfants. Assistees Dupuytren on tear sacs and so on. All are very cordial if one is paying for a course, but the visitor who does not come across with an honorarium gets polite but scant attention.

The lure of Paris is strong, but the lure of the U. S. A. for Americans is stronger and will be glad to get back to Little Rhody.

Cordially yours

H. E. BLANCHARD

Paris, France
le 7 Juin; 1925

TALK BEFORE R. I. STATE MEDICAL SOCIETY, JUNE 4, 1925.

THE GORGAS MEMORIAL.

Since the last meeting of your Society, the Gorgas Memorial has evidenced a steady healthy growth. I shall outline briefly our program and ask your support in developing this national health movement of which the President of the United States is the head and doctors and laymen well known to you compose its directorate.

As you know, the Gorgas Memorial program consists of two phases: First, Research in tropical disease; Second, "Personal" health education.

Tropical Research

When the Gorgas Memorial Institute was incorporated the Republic of Panama, in recognition of Gorgas' great work in eradicating yellow fever from the Isthmus, donated a site and guaranteed the initial buildings to house the research laboratories. Last September the Panama Government authorized a \$750,000 bond issue to finance the cost of construction of the laboratory. A drive to raise \$10,000 towards the Endowment Fund is now under way in Panama and the Canal Zone. In addition \$10,000 worth of laboratory material is available for use when a sufficient sum has been secured to finance the research teams.

To those familiar with health conditions in the tropics, the research program makes a very definite appeal. American firms engaged in trade with South America are intensely interested and anxious to have the work begin. Several of the bigger corporations have assured us of financial support and every co-operation with our research workers in eradicating the diseases that are causing such tremendous financial losses annually.

"Personal health education"

It is the opinion of the Gorgas Memorial organization that there is a distinct need for reliable health information presented to the lay public in an ethical interesting way, under the proper auspices. This belief has been substantiated by the cordial reception our educational releases have received from the public press since the inauguration of our educational program, on a modest scale, in January of this year.

It is not our purpose to duplicate the work of existing organizations. Public health activities are adequately provided for in practically every state. But "personal" health depends upon the individual. There is a very definite need for the dissemination of information that will prevent the so-called "habit" diseases that lead to incurable disease if not discovered early. The Gorgas message, therefore, is directed to the individual, through the pages of the daily newspaper, the general magazine, by means of the radio and moving picture.

Within the last three months, 12 signed health articles prepared by medical specialists of national reputation have been distributed to 1,000 news-

papers and the various press services. A series of 12 radio talks has been broadcasted by our State Governing Committee members from the principal radio stations in the United States. Arrangements have been made with several radio directors for the broadcasting of weekly Gorgas health talks.

All of these articles and talks feature the importance of close co-operation between scientific medicine and the public to improve health and prolong life. The point is brought home to the reader or "listener-in" that his family physician should be regarded as the custodian of his physical well being and that the scientific medical profession is the real authority in all matters pertaining to health.

This material is carefully censored to prevent the publication of anything that can be criticized from the standpoint of ethics or scientific accuracy. It gives us great pleasure to report that the response from the newspaper editors, press associations and radio directors has been most cordial. Every article submitted has been accepted and published and scores of editorials have been received at headquarters, commenting favorably on this movement of doctors and laymen to make life healthier and longer by developing co-operation between the public and the profession. The following quotation from the *Detroit Saturday Night*, a lay weekly, is typical of many clippings that have come in from all parts of the country:

"Quacks and quackery will receive a hearty blow when the Gorgas Memorial Institute, recently founded in honor of the great army medical man who showed the world that yellow fever and other pestilences could be conquered by preventive methods, gets functioning. The Institute is not heralding as one of its purposes the counteracting of propaganda such as spread by those who use every opportunity to attack the medical profession but just so far as its plans as announced are successful, it will help to overcome pernicious teachings and ignorance regarding health."

Co-operation of the American Dental Association

In November of last year, the American Dental Association appointed a Gorgas Memorial Committee for the purpose of co-operating with the Gorgas Memorial Institute in enlisting the support of the dentists in our program. This committee, of which Dr. D. M. Gallie of Chicago is chair-

man, is conducting a campaign among the members of the Dental Association, in which the state dental associations and dental journals are co-operating. We may well call the Gorgas Memorial a triple alliance between the doctor, the dentist and the individual.

State and County Medical Societies

Many county medical societies have appointed delegates to co-operate with the Gorgas State Governing Committee in developing the Gorgas program.

Medical Journals

The state and special medical journals and county society bulletins have been most generous in their allotment of space to Gorgas Memorial news. Through their cooperation we have been able to bring the Gorgas program before many doctors who otherwise, owing to our limited field organization, would not be reached.

The Gorgas Memorial has passed the experimental stage. It has demonstrated that the public is willing and anxious to be guided in matters of health by the real authority—the scientific medical profession. People are entitled to proper health information furnished them in a conservative, ethical, interesting way, from a reliable source. A program of this kind cannot be developed by the individual doctor—the Gorgas Memorial affords the channel through which it can be done, and judging from the response to our initial effort of the past three months, it appears that we have struck the right note.

The Rhode Island Medical Society comprises in its membership the leaders in their profession. You representative men must accept the responsibility your position imposes upon you. Fifteen hundred well known doctors and laymen are now serving on Gorgas Memorial State Governing Boards, each one of whom has indicated his faith in the project by contributing financially to it—and actively participating in bringing its principles to the attention of others. We want your help—we want your advice—we want your association in developing the Gorgas idea. You can render this aid most effectively by becoming a member of your State Governing Board. Many of you are already members. Others have been invited to serve and have not yet accepted. I urge you to respond immedi-

ately in order that we may expand the Gorgas program to the fullest extent as quickly as possible. It is only by educating the individual in the truths of scientific medicine that the various irregular cults can be checked and that improper medical legislation can be obstructed.

The Gorgas Memorial is a co-operative medical and lay organization controlled by scientific medicine in all its branches. It is *your organization*. Won't *you* help in its development?

RHODE ISLAND MEDICAL SOCIETY CLINICAL CONFERENCES COMMITTEES

In accordance with the vote of the Society at its annual meeting the following members were appointed a committee to organize clinical conferences at the various hospitals throughout the state: Dr. N. C. Baker, Dr. F. H. Beckett, Dr. F. N. Brown, Dr. John Champlin, Dr. Halsey DeWolf, Dr. J. E. Donley, Dr. A. H. Harrington, Dr. F. V. Hussey, Dr. J. W. Leech, Dr. A. D. Mead, Dr. J. E. Mowry, Dr. I. H. Noyes, Dr. D. L. Richardson, Dr. W. C. Rocheleau, Dr. A. H. Ruggles.

The meeting of this committee was held at the Medical Library, August 18, 1925, at 11 A. M. The temporary organization was made a permanent organization, and Dr. Halsey DeWolf, President of the Rhode Island Medical Society, was elected chairman of the committee; Dr. J. W. Leech, secretary; Dr. J. E. Mowry, treasurer. It was voted that sub-committees be appointed by the chair, with the following result:

1. Publicity—Dr. F. N. Brown, Dr. A. H. Ruggles.

2. Printing—Dr. F. H. Beckett, Dr. F. V. Hussey, Dr. I. H. Noyes.

3. Schedule—Dr. D. L. Richardson, Dr. J. E. Donley, Dr. Halsey DeWolf.

On motion of Dr. Ruggles, seconded by Dr. Richardson, it was voted that the action of the foregoing committees be subject to the advice and approval of the chairman of the committee of the whole.

The following letter was sent to the Board of Trustees of the following hospitals: Rhode Island Hospital, St. Joseph's Hospital, Providence Lying-In Hospital, Providence City Hospital, State Hospital for Mental Diseases, Butler Hospital:

"Dear Sirs:

"The undersigned committee, representing the Rhode Island Medical Society, is planning to arrange for a series of 'Clinical Conferences' at the various hospitals of the state, during the coming winter. It is hoped that the trustees of your hospital will co-operate in furthering such a plan, and is requested that a reply be promptly sent to the undersigned, signifying this co-operation.

"Yours very truly "

The following letter was sent to the secretary of the staff of the same hospitals:

"Dear Sir:

"The undersigned committee, representing the Rhode Island Medical Society, is planning to arrange for a series of 'Clinical Conferences' at the various hospitals of the State during the coming winter. Any staff member of these hospitals may be called upon to take part in conducting such conferences, and it is sincerely hoped that all staff members will help to further the success of this plan.

"Yours very truly "

On motion of Dr. Donley, duly seconded, it was voted that the clinical conferences be confined at present to those hospitals whose staffs are affiliated with the Rhode Island Medical Society. It was voted that notices and schedules of these clinical conferences be sent to all M.D.'s in Rhode Island. It was voted that those members of this committee representing a hospital outside of Providence be permitted to associate with themselves members of the staffs of their respective hospitals at their discretion to arrange and submit by Sept. 15th to this committee a schedule of a clinical conference to be held in their respective hospitals.

It was voted that the following fees be established for the clinical conference:

Registration for one (1) course, \$5.00.

Registration for three (3) courses, \$10.00. with the privilege in the latter case of attending any individual clinical conference.

After consideration of the tentative schedule of conferences as outlined for the Providence hospitals, the meeting adjourned.

J. W. LEECH, M.D., Secretary.

PROGRAM

INTER-STATE POST GRADUATE ASSEMBLY OF AMERICA

St. Paul, Minnesota,

October 12, 13, 14, 15 and 16, 1925.

General headquarters for all scientific sessions and exhibits: St. Paul Auditorium.

Hotel headquarters: St. Paul Hotel.

FIRST DAY.

Monday, October 12th.

7 A. M.

1. Diagnostic Clinic (Medical).

Dr. Charles S. Williamson, Prof. of Medicine, University of Illinois College of Medicine, Chicago, Ill.

2. Diagnostic Clinic (Surgical).

Dr. William S. Baer, Associate Prof. of Orthopedic Surgery, Johns Hopkins University Medical Dept., Baltimore, Md.

3. Diagnostic Clinic (Oto-laryngology).

Dr. Hanau W. Loeb, Dean and Prof. of Ear, Nose and Throat Diseases, St. Louis University School of Medicine, St. Louis, Mo.

INTERMISSION.

Review Exhibits.

4. Diagnostic Clinic (Surgical).

Dr. E. Starr Judd, Prof. of Surgery, Minnesota Graduate School of Medicine, Rochester, Minn.

5. Diagnostic Clinic (Surgical). (a) Non-specific lung suppuration, such as bronchiectasis or bronchiectatic abscess of the lung in combination with a patient suffering from pulmonary tuberculosis.

(b) Cancer of the esophagus, breast, thromboangiitis obliterans, cholecystitis with or without stones.

Dr. Willy Meyer, Prof. of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.

AFTERNOON SESSION.

1 P. M.

6. Diagnostic Clinic (Medical). Arterial hypertension, diseases of the heart and kidney.

Dr. Elsworth S. Smith, Prof. of Clinical Medicine, Washington University School of Medicine, St. Louis, Mo.

7. Diagnostic Clinic (Surgical). General surgical cases.

Dr. Arthur M. Shipley, Prof. of Surgery, University of Maryland, School of Medicine, Baltimore, Md.

8. Diagnostic Clinic (Surgical).

Dr. George J. Heuer, Prof. of Surgery, University of Cincinnati, College of Medicine, Cincinnati, O.

9. Diagnostic Clinic (Medical).

Dr. William J. Kerr, Associate Prof. of Medicine, University of California, San Francisco, California.

10. "Chronic Infections of the Skull."

Dr. Charles B. Lyman, Prof. of Clinical Surgery, University of Colorado, School of Medicine, Denver, Colo.

11. Subject later.

Dr. Charles S. Williamson, Prof. of Medicine, University of Illinois College of Medicine, Chicago, Ill.

INTERMISSION.

Review Exhibits.

12. Subject later.

Dr. William S. Baer, Associate Prof. of Orthopedic Surgery, Johns Hopkins University Medical Dept., Baltimore, Md.

13. Subject later.

Dr. C. J. MacGuire, Jr., New York, N. Y.

14. "The Anatomic Relation of the Optic Nerve to the Para-nasal Sinuses." (Slides.)

Dr. Hanau W. Loeb, Dean and Prof. of Ear, Nose and Throat Diseases, St. Louis University School of Medicine, St. Louis, Mo.

EVENING SESSION.

7 P. M.

15. "Pernicious Anemia."

Dr. Edward W. Montgomery, Prof. of Medicine and Clinical Medicine, University of Manitoba Faculty of Medicine, Winnipeg, Can.

16. "The Treatment of Cicatricial Contractures of the Neck."

Dr. Charles N. Dowd, Prof. of Clinical Surgery, Columbia University School of Medicine, New York, N. Y.

17. "The Diagnosis and Treatment of Heart Disease."

Dr. William J. Kerr, Associate Prof. of Medicine, University of California, San Francisco, Cal.

18. Subject later.

Dr. E. Starr Judd, Prof. of Surgery, Minnesota Graduate School of Medicine, Rochester, Minn.

INTERMISSION.

Review Exhibits.

19. "Examination of Para-nasal Sinuses" (with clinical demonstrations and radiographs).

Dr. Cornelius G. Coakley, Prof. of Laryngology and Otology, Columbia University School of Medicine, New York, N. Y.

20. "Newer Methods of Preliminary Medication and General Anesthesia" (lantern slides).

Dr. James T. Gwathmey, New York, N. Y.

21. "The Preparation and Use of Thick Skin Grafts." (Slides.)

Dr. Harry P. Ritchie, Associate Prof. of Surgery, University of Minnesota Graduate School of Medicine, St. Paul, Minn.

SECOND DAY.

Tuesday, October 13th.

7 A. M.

1. Diagnostic Clinic (laryngology).

Dr. Cornelius G. Coakley, Prof. of Laryngology and Otology, Columbia University School of Medicine, New York, N. Y.

2. Diagnostic Clinic (Surgical). Neck cases, especially T. B., bronchial cysts or fistulae thyroglossal cysts, or fistulae hygromas.

Dr. Charles N. Dowd, Prof. of Clinical Surgery, Columbia University School of Medicine, New York, N. Y.

3. Diagnostic Clinic (Medical). Bone, cardiovascular, blood or gastro-intestinal cases.

Dr. Joseph Sailer, Prof. of Clinical Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa.

INTERMISSION.

Review Exhibits.

4. Diagnostic Clinic (Surgical). Cranial and general surgical cases.

Dr. Samuel Clark Harvey, Associate Prof. of Surgery, Yale University School of Medicine, New Haven, Conn.

5. Diagnostic Clinic (Surgical). Upper abdominal cases.

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania School of Medicine, Philadelphia, Pa.

AFTERNOON SESSION.

1 P. M.

6. Diagnostic Clinic (Diabetic).

Dr. Rollin T. Woodyatt, Clinical Prof. of Medicine, Rush Medical College, Chicago, Ill.

7. Diagnostic Clinic (Surgical). Surgery of the Face and Various Parts of the Body.

Dr. Allen B. Kanavel, Prof. of Surgery, Northwestern University School of Medicine, Chicago, Ill.

8. Diagnostic Clinic (Medical). Heart and lung cases.

Dr. Edward J. Beardsley, Associate Prof. of Medicine, Jefferson Medical College, Philadelphia, Pa.

9. "The Role of Operative Surgery in the Treatment of Pulmonary Tuberculosis." (Slides.)

Dr. Willy Meyer, Prof. of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.

INTERMISSION.

Review Exhibits.

10. "Hypertension."

Dr. James H. Means, Prof. of Clinical Medicine, Harvard University School of Medicine, Boston, Mass.

11. "Observations on the Gall Bladder."

Dr. Frank Boland, Prof. of Surgery, Emory University School of Medicine, Atlanta, Ga.

12. "Thoracic Suppurations."

Dr. Arthur M. Shipley, Prof. of Surgery, University of Maryland, School of Medicine, Baltimore, Md.

13. "Pyloric Stenosis."

Dr. E. E. Francis, Prof. of Surgery, University of Tennessee, School of Medicine, Memphis, Tenn.

EVENING SESSION.

7 P. M.

14. "The Treatment of Cardiac Syphilis."

Dr. Harlow Brooks, Prof. of Clinical Medicine, University and Bellevue Hospital Medical College, New York, N. Y.

15. "Plastic Surgery."

Dr. Allen B. Kanavel, Prof. of Surgery,
Northwestern University School of Medicine,
Chicago, Ill.

16. "Heliotherapy as an Adjunct in the Treatment of Chronic Surgical Conditions."

Dr. George J. Heuer, Prof. of Surgery, University of Cincinnati, College of Medicine,
Cincinnati, O.

17. "Further Studies Concerning the Injurious Effects of Arterial Hypertension on the Cardio-Vascular Renal Apparatus."

Dr. Elsworth S. Smith, Prof. of Clinical Medicine, Washington University School of Medicine,
St. Louis, Mo.

INTERMISSION.

Review Exhibits.

18. "The Relation of the Human Constitution to Disease."

Dr. George Draper, New York, N. Y.

19. Subject later.

Dr. Milton J. Rosenau, Prof. of Preventive Medicine and Hygiene, Brookline, Boston,
Mass.

20. "Drainage as a Factor in Renal Disease." (Slides.)

Dr. Guy L. Hunner, Associate Prof. of Gynecology, Johns Hopkins University School of Medicine,
Baltimore, Md.

THIRD DAY.

Wednesday, October 14th.

7 A. M.

1. Diagnostic Clinic (Medical). Cases of cardiac syphilis, cardiac decompensation, lung tumor or abscess, acute rheumatic fever, angina pectoris, chronic nephritis.

Dr. Harlow Brooks, Prof. of Clinical Medicine, University and Bellevue Hospital Medical College, New York, N. Y.

2. Diagnostic Clinic (Gynecology).

Dr. Guy L. Hunner, Associate Prof. of Gynecology, Johns Hopkins University School of Medicine,
Baltimore, Md.

3. Diagnostic Clinic (Psychiatry).

Dr. Thomas W. Salmon, Prof. of Psychiatry, Columbia University School of Medicine,
New York, N. Y.

INTERMISSION.

Review Exhibits.

4. Diagnostic Clinic (Medical). Hypertensive diseases. Dr. James H. Means, Prof. of Clinical Medicine, Harvard University School of Medicine, Boston, Mass.

5. Diagnostic Clinic (Surgical). Cases of rheumatism or rheumatoid arthritis.

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.

AFTERNOON SESSION.

1 P. M.

6. Pathological Conference supervised by Dr. H. E. Robertson, Prof. of Pathology, University of Minnesota (Mayo Foundation), Rochester, Minn.

7. Diagnostic Clinic (Medical). Cardio-vascular diseases or diseases of the blood.

Dr. Maurice C. Pincoffs, Prof. of Medicine, University of Maryland, School of Medicine,
Baltimore, Md.

8. "Familiar Problems in Gynecology."

Dr. William P. Graves, Prof. of Gynecology, Harvard University School of Medicine,
Boston, Mass.

9. "Diphtheria and Its After Effects."

Dr. H. B. Cushing, Clinical Prof. of Pediatrics, McGill University Faculty of Medicine,
Montreal, Can.

INTERMISSION.

Review Exhibits.

10. "Duodenal Ulcer versus Cholecystitis."

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania School of Medicine,
Philadelphia, Pa.

11. "Some Recent Revelations of the Denervated Heart."

Dr. Walter B. Cannon, Prof. of Physiology, Harvard University School of Medicine,
Boston, Mass.

12. "The Significance of Arterial Hypertension."

Dr. Wilder Tileston, Clinical Prof. of Medicine, Yale University School of Medicine,
New Haven, Conn.

13. "Carcinoma of the Rectum."

Dr. Alfred T. Bazin, Prof. of Surgery, McGill University Faculty of Medicine, Montreal, Can.

EVENING SESSION.

7 P. M.

14. "The Diagnosis of Abdominal Tumors." (Slides.)
Dr. Joseph Sailer, Prof. of Clinical Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa.
15. "The Liver and Its Function in Relation to Its Surgical Diseases."
Dr. Samuel Clark Harvey, Associate Prof. of Surgery, Yale University School of Medicine, New Haven, Conn.
16. "Renal and Ureteral Stones."
Dr. Edward L. Keyes, Prof. of Clinical Surgery, Department of Urology, Cornell University School of Medicine, New York, N. Y.
17. "Post-Graduate Instruction in Our Own Offices."
Dr. Edward J. Beardsley, Associate Prof. of Medicine, Jefferson Medical College, Philadelphia, Pa.

INTERMISSION.

Review Exhibits.

18. "Osteotomy of the Os Calcis for Extreme Cases of Flat Feet." (Slides.)
Dr. John P. Lord, Prof. of Orthopedic Surgery, University of Nebraska, School of Medicine, Omaha, Nebr.
19. "Treatment and Prognosis in Pericarditis."
Dr. Maurice C. Pincoffs, Prof. of Medicine, University of Maryland School of Medicine, Baltimore, Md.
20. "Modern Medical Education Progress or Retrogression."
Dr. Eugene E. Murphey, Prof. of Medicine, University of Georgia School of Medicine, Augusta, Ga.

FOURTH DAY.

Thursday, October 15th.

7 A. M.

1. Diagnostic Clinic (Surgical). Renal and ureteral stone cases.
Dr. Edward L. Keyes, Prof. of Clinical Surgery, Department of Urology, Cornell University School of Medicine, New York, N. Y.
2. Diagnostic Clinic (Pediatric). Rheumatic fever and after effects in children of school age.
Dr. H. B. Cushing, Clinical Prof. of Pediatrics, McGill University Faculty of Medicine, Montreal, Can.
3. Diagnostic Clinic (Surgical). Acute abdominal lesion cases.

Dr. Alfred T. Bazin, Prof. of Surgery, McGill University Faculty of Medicine, Montreal, Can.

INTERMISSION.

Review Exhibits.

4. Diagnostic Clinic (Surgical).
Dr. Arthur Dean Bevan, Prof. of Surgery, Rush Medical College, Chicago, Ill.
5. "The Five Most Important Obstetrical Mistakes."
Dr. Joseph B. DeLee, Prof. of Obstetrics, Northwestern University School of Medicine, Chicago, Ill.

AFTERNOON SESSION.

1 P. M.

6. Diagnostic Clinic (Medical). Abdominal diseases, especially liver.
Dr. Wilder Tileston, Clinical Prof. of Medicine, Yale University School of Medicine, New Haven, Conn.
7. Diagnostic Clinic (Surgical). Management of cases of prostatic obstruction.
Dr. Hugh Cabot, Prof. of Surgery, University of Michigan School of Medicine, Ann Arbor, Mich.
8. "Pneumococcus Peritonitis."
Dr. Charles L. Gibson, Prof. of Surgery, Cornell University School of Medicine, New York, N. Y.
9. "Focal Infection."
Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.

INTERMISSION.

Review Exhibits.

10. "The Aetiology of Anaemia and Its Importance in Diagnosis and Treatment."
Dr. Duncan A. L. Graham, Prof. of Medicine, University of Toronto, Faculty of Medicine, Toronto, Can.
11. "A Re-study of Operations for Radical Cure of Hernia, Including Inguinal, Femoral, Umbilical, Postoperative Hernias Associated with Undescended Testis and Diaphragmatic Hernia."
Dr. Arthur Dean Bevan, Prof. of Surgery, Rush Medical College, Chicago, Ill.
12. Subject later.
Mr. Philip Franklin, F.R.C.S., London, Eng.
13. Subject later
Dr. Thomas W. Salmon, Prof. of Psychiatry, Columbia University School of Medicine, New York, N. Y.

EVENING SESSION.

7 P. M.

14. "The Relative Roles of Surgery and of Radiation in the Treatment of Tumors of the Breast."

(Concluded on 2d page following)

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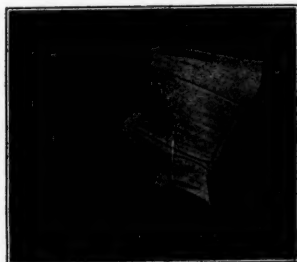
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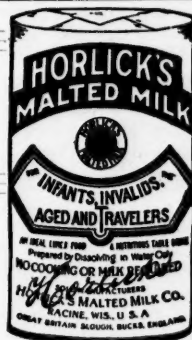
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- (a) Dr. F. E. Bunts, Prof. Principles of Surgery and Clinical Surgery, Western Reserve University School of Medicine, Cleveland, O.
- (b) Dr. U. V. Portmann, Cleveland Clinic, Cleveland, O.
- 15. "Joint Ankylosis—Surgical Measures for Its Prevention and Relief."
Dr. Nathaniel Allison, Prof. of Orthopedic Surgery, Harvard University School of Medicine, Boston, Mass.
- 16. "The Physiology of the Female Pelvic Floor."
Dr. Ernest F. Tucker, Prof. of Gynecology, University of Oregon, School of Medicine, Portland, Ore.
- 17. "Syphilis and Its Relation to Eye Diseases."
Dr. William H. Wilder, Prof. of Ophthalmology, Rush Medical College, Chicago, Ill.

INTERMISSION.

Review Exhibits.

- 18. "Diagnosis of Diseases of the Rectum."
Dr. L. J. Austin, Prof. of Surgery, Queen's University Faculty of Medicine, Kingston, Can.
- 19. Subject later.
Dr. James E. Thompson, Prof. of Surgery, University of Texas School of Medicine, Galveston, Tex.
- 20. Subject later.
Dr. Arthur A. Law, Associate Prof. of Surgery, University of Minnesota Graduate School of Medicine, Minneapolis, Minn.

FIFTH DAY.

Friday, October 16th.

7 A. M.

- 1. Diagnostic Clinic (Surgical). Abdominal and gastro-intestinal cases.
Dr. Charles L. Gibson, Prof. of Surgery, Cornell University School of Medicine, New York, N. Y.
- 2. Diagnostic Clinic (Surgical). Joint involvement, particularly cases of suspected tuberculosis of either the knee, hip or other joints.
Dr. Nathaniel Allison, Prof. of Orthopedic Surgery, Harvard University School of Medicine, Boston, Mass.
- 3. Diagnostic Clinic (Medical). Cases of cardiac lesions or signs of interference with cardiac function.
Dr. J. C. Meakins, Prof. of Medicine and Director of the Department, McGill University Faculty of Medicine, Montreal, Can.

INTERMISSION.

Review Exhibits.

- 4. Diagnostic Clinic (Surgical).
Dr. George W. Crile, Prof. of Surgery, Western Reserve University School of Medicine, Cleveland, O.

- 5. Diagnostic Clinic (Medical). Cases of anemia and mediastinal tumor.
Dr. Duncan A. L. Graham, Prof. of Medicine, University of Toronto Faculty of Medicine, Toronto, Can.

AFTERNOON SESSION.

1 P. M.

- 6. Diagnostic Clinic (Surgical). Cases of anemia.
Dr. William J. Mayo, Mayo Clinic, Rochester, Minn.
- 7. Diagnostic Clinic (Surgical).
Sir William Arbuthnot Lane, Bt., London, Eng.
- 8. Pathological Conference supervised by Dr. H. E. Robertson, Prof. of Pathology, University of Minnesota (Mayo Foundation), Rochester, Minn.
- 9. "Circulatory Failure in Heart Disease."
Director of the Department, McGill University Faculty of Medicine, Montreal, Can.

INTERMISSION.

- 10. "The Cause and Prevention of So-called Catheter Cystitis and Retention of the Urine."
Dr. Hugh Cabot, Prof. of Surgery, University of Michigan, School of Medicine, Ann Arbor, Mich.
- 11. "Treatment of Gastric Ulcer."
(a) Indications for and the Technique of Dissection of the Stomach for Ulcer.
Dr. George W. Crile, Prof. of Surgery, Western Reserve University School of Medicine, Cleveland, O.
- (b) "The Medical Treatment of Gastric Ulcer."
Dr. John Phillips, Assistant Prof. of Therapeutics, Western Reserve University School of Medicine, Cleveland, O.
- (c) "The Patient Versus His Lesion."
Dr. George W. Crile, Cleveland, O.
- 12. "The Association of Lesions of the Bone Marrow, the Liver and the Spleen in Certain Blood Dyscrasias."
Dr. William J. Mayo, Mayo Clinic, Rochester, Minn.

FOREIGN GUESTS.

Sir William Arbuthnot Lane, London, Eng.
Mr. William Blair Bell, F.R.C.S., Prof. of Obstetrics and Gynecology, University of Liverpool Medical Dept., Liverpool, Eng.
Professor Vittorio Putti, Bologna, Italy.
Mr. Philip Franklin, F.R.C.S., London, Eng.
Dr. H. L. McKisack, Consulting Physician, Royal Victoria Hospital, Belfast, Ireland.
Dr. W. H. Parkes, C.M.G., C.B.E., Auckland, New Zealand.

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